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AXIS STRATEGIC OIL PLANNING AND ITS EFFECTS ON THE ENEMY'S OPERATIONAL POSITION

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SUMMARY

1. For the first time during four years of war Axis potential supplies of oil from sources of production at present under its control exceed Axis requirements by an estimated 1.5 to 2.0 million tons. Nevertheless, restrictions imposed at present on consumption are more severe than ever.

2. This stringency reflects a tightening of allocations by the Nazi regulating and policy making authority, the Reichsstelle Fuer Mineraloel. The size of such allocations is dependent on current and anticipated supplies and the level of stocks as compared with current and anticipated requirements.

3. Every measure to increase and regulate production, to control and reduce consumption and to reorganize distribution becomes effective only after a time lag. Any sudden change imposed on production, consumption and distribution may fatally injure the war effort. Reduced consumption in 1943 is a result of economy measures initiated in previous years.

4. In 1940 during the campaign in Western Europe and in 1941 and 1942 in Eastern Europe, the enemy expended oil in excess of current domestic supplies. In both cases a short campaign was expected for which ac-

cumulated stocks could be used; also considerable loot and the conquest or control of new large oil fields -- Rumania in the first case and the Caucasus in the second, was anticipated. While enemy hopes were fulfilled in the 1940 campaign, plans for 1941 and 1942 proved to be a dismal failure. All attempts to increase production and reduce consumption in 1941 and 1942 did not lead to a balance of supply and demand before the end of 1942. Axis stocks thus sank to a minimum by the end of 1942.

5. Though 1943 supplies are expected to exceed demand, United Nations' actions may put a large percentage of anticipated Axis supplies in jeopardy, causing at the same time an expansion of Axis requirements. The low level of allocations thus serves to build up stocks and to provide some margin against adverse developments which might well affect anticipated supplies and requirements.

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1. In 1943, for the first time during four years of war, anticipated production of petroleum (17.8 to 18.3 million tons) in countries at present under Axis domination will exceed estimated requirements (16.3 million tons) by the sizeable quantity of 1.5 to 2.0 million tons.

However, restrictions being imposed on essential industrial consumption in Axis Europe are increasingly severe. The program of converting petroleum engines to the use of solid or gaseous substitute fuels is being pushed ahead as fast as possible, in spite of the large investment of man-hours, and materials, and not-withstanding the loss of efficiency which such conversions involve.

There is even intelligence to the effect that aviation training has been hampered occasionally by lack of oil, though no such shortages have yet been reported from the enemy's fighting front.

Thus, there seems to exist a contradiction between the apparent surplus shown by statistical estimates and actual intelligence on current shortages and deficiencies. This apparent paradox can be solved by an analysis of the complicated interrelations between the operational position and the strategic planning of the enemy on petroleum.

2. The quantities of petroleum actually consumed in Axis Europe do not necessarily and scarcely ever correspond exactly to current supplies. Consumption reflects current allocations of the Reichsstelle Fuer Mineraloel, the Nazi administration in charge of petroleum supplies. Such allocations were, up to 1942, generally in excess of current domestic supplies. At present they fall short of the available output. In the former period loot, newly conquered production, and withdrawals from stocks covered the deficit; now the surplus is being used to build up stocks as insurance against unfavorable military developments.

3. Current production is only one of many factors entering into the determination of the actual size of the allocations. Also considered are anticipated supplies, the level of stocks, and current and anticipated requirements. Essentially, it is the aim of the regulations and policy making authority to make allocations at a level that will meet military and all essential civilian and industrial requirements now and in the future, until victory is won. If that should prove impossible, it will endeavor to confine shortages to uses, areas, and periods where and when they do the least harm to the war effort. To do this it must relate its own industrial and military planning to the oil position; such planning in turn hinges on its evaluation of the enemy's strategic intentions, relative to attacks on oil producing areas

or the destruction of synthetic oil plants and refineries, or to greatly extended active military operations.

4. Actual allocations are thus predicted on:

A. Supplies -- current and anticipated.

a. Production may be expected to increase by the development of new domestic sources (synthetic plants, oil fields, larger production of substitutes etc.), or by new territorial conquests (loot, oil fields in subjugated countries etc.)

b. A decline may occur through natural reasons (exhaustion of fields, etc.) or by enemy action (aerial destruction of plants, territorial loss of oil fields, interference with distribution, etc.)

B. Demand -- current and anticipated.

a. Demand may be expected to increase if higher industrial activity leads to larger motor transport requirements which cannot otherwise be offset. But more important are increases due to greater military activity or to the conquest of oil deficient territories which have to be maintained at minimum levels of economic operations.

b. Demand may be expected to decline through increased substitution, decreased military activity, a shortening of fronts, and the loss of oil deficient possessions.

C. The necessity to maintain or to increase stocks or the possibility of withdrawing from them. The consider-

ations involved here depend on the size of present stocks in relation to current and future supply and demand.

a. If stocks are at or below the distributional minimum, every effort must, of course, be made to build them up if anticipated requirements exceed anticipated supplies, and if it is more important for the enemy's war effort to be able to satisfy anticipated future requirements than to release current supplies for current consumption.

b. Stocks will be maintained if their present level is considered satisfactory and if present and anticipated supply and demand are in balance.

c. Withdrawals from stocks may be made if reserves are at a satisfactory level and future supplies exceed or equal requirements. But even if anticipated supplies also fall short of future demand, stocks will be consumed if the immediate effects of non-withdrawals should be more serious than the inability to balance future supplies and requirements.

5. All of the various factors cited above are influenced by the Axis economic and military planning and by conditions which the enemy may be expected to impose upon it. Within limits prescribed by particular as well as overall economic factors the regulating authority can increase production, reduce industrial consumption, or

adapt supplies to a changing demand pattern. But all such changes become effective only after the time lag needed to erect new plants, to effect substitution, to build up stocks, to overcome the lack of manpower, raw materials, and transportation as well as technological problems. Organizational and planning measures are thus of a long term nature and an appraisal of such measures must take cognisance of this fact.

6. If the enemy oil economy is evaluated in the light of all these considerations the following conclusions result.

In 1940 in Western Europe and 1941 and 1942 in Eastern Europe the enemy expended oil in excess of its current domestic supplies. But at the time of the French campaign accumulated stocks were large and considerable loot could be expected. Complete control over Rumania, with its large oil production was also probable. In spite of the increase in Axis requirements due to the conquest of the oil deficient countries of Western Europe, Germany could expect to supply all industrial and an appreciable military consumption out of current production.

It was, of course, anticipated in 1941 that oil expenditure in the Russian campaign would exceed current production. But an underestimation of the length of the campaign provided the further expectation

that this deficit could be financed out of stocks. At the end of the campaign, Germany hoped to control the rich Russian oil fields and be able to replenish stocks. When the Russian campaign in '41 and in '42 did not lead to the expected results, the Axis oil economy was submitted to a three-fold squeeze. This was caused first, by the continued expenditure of oil in Russia, second, by the failure to conquer the Caucasian oil fields and third, by the necessity to prepare for land, sea, and air fighting against the Anglo-Saxon powers. The oil planning authorities concentrated all efforts to increase Axis production and to reduce the consumption; but they were unable to prevent stocks from falling to a distributional minimum by the end of 1942.

By 1943, however, the enemy is again able to show an excess of supplies over requirements in the order of 1.5 to 2.0 million tons per annum, assuming that military activity is maintained on the 1942 level.

The oil position is, however, as serious as ever. A decline in production in the interior zone of the Axis is to be expected for the following reasons:

a. Because of incessant airraids on the Ruhr where a synthetic capacity of 1.7 million tons is concentrated.

b. Because of potential airraids on other synthetic plants and refineries from bases in England as well as Italy.

c. Because of the indirect damage caused by air-raids to transportation, labor, and production.

In the outer fringe of Axis Europe the loss of Axis Satellite countries because of military or political actions by the United Nations must be envisaged. Rumania, with a production of 5 million tons and an export surplus of 3 million tons, and Hungary with a production of 1.4 million tons and an export surplus of 1 million tons, are no longer assured sources of Axis supplies as demonstrated by the recent U.S. air-raid on the Ploesti refining center.

Germany must also anticipate an increase in demand. The Axis has lost the military initiative. In Russia as well as in Italy or other potentially second front theaters of operation, the Axis has to match the forces deployed by its enemy. The program of greater army mechanization and the efforts to build up a larger airforce also call for greater supplies of oil.

The enemy has to consider the urgent need for an increase in stocks, which can no longer be postponed. By the end of 1942 reserves had fallen to the distributional minimum. The change from offensive to defensive warfare has, however, increased the size of tied stocks. With major sources of supplies jeopardized and with the development of consumption as uncertain as at present, large emergency stocks are a prime strategic necessity.

Against this somber supply picture the Axis

can in 1943 expect savings in demand if Italy or other oil-deficient countries should leave the Axis. It can finally expect a contraction of military requirements if the front lines are shortened and the armies reduced by default of Axis Satellite countries. But all potential savings are of a much smaller order than the anticipated losses of production.

The Axis has thus to provide for the contingency that before the end of 1943 the present excess of supplies over requirements will be more than wiped out. Measures to increase production and to reduce consumption to be effective when the anticipated change in the supply and demand position might occur have to be taken as far in advance as possible. Only if such measures have been taken in time will the Axis be able to provide its war machine with enough petroleum for a defense of its interior zones. An oil deficiency in the outer defense zones now may appear to the Axis less fatal than a shortage of supplies later for a final defense stand.